# Of house and immigrants

## How did low-income immigrants end up in a sinking neighbourhood

Esteban, T.A.O.E.

**DOI**
10.1016/j.cities.2025.106599

**Publication date**
2026

**Document Version**
Final published version

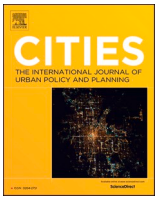
**Published in**
Cities: the international journal of urban policy and planning

Cities 169 (2026) 106599

Contents lists available at ScienceDirect

Cities

journal homepage: www.elsevier.com/locate/cities



# Of house and immigrants: How did low-income immigrants end up in a sinking neighbourhood

Theresa Audrey O. Esteban *

*Delft University of Technology, Faculty of Architecture, Management in the Built Environment, the Netherlands*

ARTICLE INFO

*Keywords:*
Social justice
Immigrants
Housing
Rotterdam act
Climate change adaptation
Intersectionality

ABSTRACT

Migration and climate change studies often focus on the movement of people due to environmental stressors but rarely examine immigrants and their residential locations post-migration. Immigrants' housing preferences vary based on factors like cultural background, proximity to work, and rental costs. Low-income immigrants' housing options may be limited to areas with low rental and property values but may also be locations vulnerable to climate-related hazards putting low-income immigrants at even greater precarity. As cities develop climate adaptation strategies, increased property values and displacement may emerge. The Rotterdam Act, a national policy in the Netherlands, restricts low-income and jobless newcomers from moving into disadvantaged areas and has been in effect in five neighbourhoods in Rotterdam South since 2006, where there is a high concentration of immigrants and residents with low socioeconomic levels. This policy framework provides a crucial backdrop for understanding how urban policies shape residential patterns while also intersecting with broader issues of social injustice and environmental challenges. In this paper, I offer a critical examination of inequality, climate change, and social justice as they relate to climate adaptation strategies and urban policies through an assessment of the history, demographic characteristics, climate challenges, and policies to demonstrate how these elements lead to increased insecurity for residents.

## 1. Introduction

Many studies on migration and climate change concentrate on people, households, or groups forced to migrate due to a loss of resources for livelihood and habitat as a result of environmental threats or climate change impacts (Campbell, 2014; Gemenne, 2015; Nguyen et al., 2024). Rarely do we come across studies on (im) migrants, climate change, and their present residential locations post-migration. Studies we often encounter revolve around migrants' reasons for migrating, and their preferred destination and residential location (Chiang & Hsu, 2005; Jayet et al., 2016; Tersteeg et al., 2015). One of the primary considerations for both destination and residential locations for migrants are employment opportunities (Chiang & Hsu, 2005; Chiswick & Miller, 2004; Findlay, 2011; Zorlu & Mulder, 2008). In this regard, urban areas have become attractive destinations for migrant workers since labor and employment prospects are perceived to be greater in these locations. Urban areas are also considered as 'arrival spaces' where most immigrants 'arrive' and settle (Gerten et al., 2022).

While studies indicate that immigrants are concentrated in urban areas, the residential location choices of immigrants within these urban areas depend largely on the immigrant's social and economic circumstances (Beckers & Boschman, 2019; Chiang & Hsu, 2005; Gerten et al., 2022; Tersteeg et al., 2015). Higher-income immigrants tend to live in the center or inner-city areas (Beckers & Boschman, 2019; Musterd & Muus, 1995) where access to economic opportunities, better quality housing, and urban amenities are present (Levkovich & Rouwendal, 2014; Musterd & Muus, 1995). However, Brueckner et al. (1999) pointed out in their study that higher-income groups tend to choose residential locations with better amenities over proximity to the center. Similarly, Chiang and Hsu (2005) also indicated that amenities such as shopping centers and schools are factors for Taiwanese immigrants' residential location choices in Australia. This implies a preference for a better living environment and suggests that even if a neighbourhood is located farther from the city center, as long as there are superior amenities such as transportation, schools, shopping centers, and better quality housing, high-income immigrants and earners will choose to live in these areas. On the other hand, lower-income immigrants do not have the privilege of such choices. Most often low-income immigrants reside

* Corresponding author at: Delft University of Technology, Faculty of Architecture, Management in the Built Environment, Building 8 Julianalaan 134, 2628 BL, Delft, the Netherlands.
*E-mail address:* t.a.esteban@tudelft.nl.

https://doi.org/10.1016/j.cities.2025.106599
Received 29 November 2024; Received in revised form 23 July 2025; Accepted 18 October 2025
Available online 28 October 2025

in areas where rents are lower and have a higher concentration of migrants with similar ethnicity (Bartel, 1989; Chiang & Hsu, 2005; Zorlu & Mulder, 2008).

The housing market and economic standing of immigrants significantly influence the decision to reside in a given location (Jayet et al., 2016; Musterd & Muus, 1995). At the same time, the accelerating rate of urbanization and growing concerns about climate change-related issues confronting cities have put additional pressure on housing markets. As cities establish climate adaptation strategies to address climate-related hazards such as refurbishing existing housing stock and constructing climate-adaptive housing infrastructure, another layer of impact emerges, rising property values and the possibility of displacement. While these efforts aim to fulfill a clear government objective to improve the environment and physical living conditions of residents, these efforts also pose a risk of displacing disadvantaged communities, including low-income immigrants.

Rotterdam, The Netherlands, has a long history of immigration as a port city long before the recruitment of a large number of guest workers during the post-World War II rebuilding era. According to 2024 statistics, 57 % of Rotterdam residents are immigrants, with 44 % coming from non-Western backgrounds (Allecijfers.nl, 2024). Rotterdam is among the cities with the highest share of immigrants in the entire country. In 2003, a policy experiment to change the population composition of the city by allowing the local government to prevent individuals below a certain income from moving to certain neighbourhoods was implemented in Rotterdam (Jordan, 2018). This policy experiment led to the development of a national policy called the "*Wet bijzondere maatregelen grootstedelijke problematiek*" (Act on Extraordinary Measures for Urban Problems) also known as the Rotterdam Act due to its roots in the city. The policy "give[s] municipalities more discretion to improve neighbourhoods' liveability by prohibiting jobless newcomers from moving into rental dwellings in areas considered particularly vulnerable or distressed" (van Gent et al., 2018: 2338). This has been applied to the south of Rotterdam as early as 2006 in the neighbourhoods of Oud-Charlois, Tarwewijk, Carnisse, Hillesluis, and Bloemhof.[1] These neighbourhoods, with a large concentration of immigrants, are socioeconomically vulnerable and need urgent climate adaptation solutions to prevent land subsidence and foundation damage to houses.

Immigrants, particularly those from lower-income households, are disproportionately affected by the compounding effects of climate change and housing insecurity. Taylor (2014) and Cole and Foster (2001) revealed in their respective studies that immigrants face precarious living conditions due to environmental hazards, and that these challenges are most prevalent in racialized neighbourhoods in the United States. In addition, systemic structures that increase their vulnerability also influence their access to secure and stable housing. Often neoliberal policies and technocratic solutions designed for disadvantaged neighbourhoods impose restrictions on residents whose access to essential resources and opportunities is already severely constrained (Cole & Foster, 2001; McCall, 2001; Roy, 2010). These neoliberal and technocratic approaches fail to meaningfully engage with residents who will be affected by these developments, resulting in solutions that do not reflect the residents' lived experiences. While the intention is to improve disadvantaged neighbourhoods, the implementation process lacks participation from residents and reinforces the narrative that low-income residents, whether immigrants or not, are problems to be solved rather than active participants in the planning and development process.

Climate change impacts are becoming increasingly linked with the lived experiences and realities faced by disadvantaged communities. Low-income immigrants often find themselves at the intersection of structural housing insecurity, economic instability, and environmental vulnerability. Their access to adequate housing and employment is often entrenched in systems of power and exclusion, limiting their opportunities for upward mobility. Recently, scholars called for critical frameworks to account for these compounded insecurities and layered structures of power relations. Vigil (2024) emphasized how multi-scalar power relations have been overlooked, and how a feminist political ecology approach to identifying power differentials could contribute to addressing climate, migration, and inequality challenges. Serraglio and Thornton (2024) explored national policies and legal frameworks for climate-induced migration in Ethiopia, India, and Peru, revealing that these policies and frameworks are still based on patriarchal norms and fail to account for gendered realities of displacement and resettlement. Similarly, Scharrer et al. (2024) use a relational, practice-oriented, and contextual approach to investigate how migration confinement policies impact migrants' experiences and their ambitions. However, critical scholarships focusing on the intersections of migration, housing, urban growth, and climate change remain scarce, often limited in scope, and some based on frameworks that assume equal starting grounds.

This paper critically examines areas historically designated for low-income port laborers and immigrant communities, focusing on how these spaces have been shaped by urban development, climate change impacts, and related policies. In particular, the paper seeks to offer a historical and policy analysis of how climate change, urban development, and migration are politicized and exacerbate vulnerabilities in certain areas. Building on reflective methods the paper aims to illuminate how systemic inequalities are architected by neoliberal and technocratic approaches to climate change adaptation and urban development overlooking the realities of low-income (immigrant) residents. This is based on the premise that knowledge is situated, embodied, and produced through lived, intersectional experiences (Crenshaw, 1989; Fricker, 2007; Harding, 1986; Hill Collins, 2000). As such, the paper explores the intersections of inequality, climate change, and social justice within the context of urban policies and climate adaptation strategies in areas that have long been segregated and marginalized. By examining Rotterdam South's historical development, demographic characteristics, climate challenges, and policies, I seek to uncover how low-income immigrant residents came to reside in Rotterdam South, and the compounded challenges they face living in their neighbourhoods. Through this examination, I aim to narrate how these interrelated factors contribute to a level of insecurity for (low-income) residents living in the neighbourhoods. The goal is to initiate a discussion on climate change and social justice concerning housing and climate adaptation solutions.

The succeeding sections of this paper are divided into four parts. Section 2 discusses the historical development of the port with the growth of the migrant populations and settlement areas in the south of Rotterdam. Section 3 presents an overview of the Rotterdam Act, the demographic characteristics of the neighbourhoods Oud-Charlois, Tarwewijk, Carnisse, Hillesluis, and Bloemhof, as well as the current climate-related issues faced by these neighbourhoods. Section 4 discusses shifting policy narratives surrounding integration, urban development, and climate change. I will dive deeper into the implications of the policies at the neighbourhood level particularly concerning the immigrant population. Finally, the concluding section reflects how exclusionary policies have perpetuated social injustices experienced by residents of the five neighbourhoods. It emphasizes the importance of understanding the intersections of climate change, migration, and housing through a social justice lens. Such an approach is necessary for informing policy reforms that consider the unique challenges confronting these neighbourhoods.

## 2. Migrants and the historical development in the South of Rotterdam

The bombing of Rotterdam in 1940 during World War II led to the destruction of approximately 80 % of the entire city. The reconstruction phase started when the Basic Plan was created in 1946 to restructure and

[1] Bloemhof was included in 2010.

reconstruct the city center and port areas (Diem, 1967; Esteban, 2022). Plans were created for the reconstruction of housing in the same locations, as well as the development of new housing on the urban fringes. The subsequent period of *maakbaarheid*[2] (economic growth), which lasted from 1960 to 1970, saw a dominant influence of the Nieuwe Bouwen (Modern Movement) in architecture. The city's modern facade was intended by the government to showcase 'wealth, knowledge, and power' (Esteban, 2022; The Netherlands Architecture Funds, 2009). In addition, during this period, the port was expanded to include Botlek (1946 to 1960) and Europoort (1960 to 1970), significantly contributing to the economic recovery of both the city and the country (Esteban, 2022; Notteboom et al., 2022). The port's expansion to Botlek created a demand for harbor workers to address labor shortages during construction, which prompted an influx of guest workers recruited by the Dutch government to help fill the shortage (see Fig. 1 Port development).

This period while a period of economic growth faced a lack of manpower due to the large emigration of the Dutch in the 1950s after World War II to Canada, the United States, Australia, and South Africa.[3] (van Putten, 2021) The guest workers recruited from Spain, Italy, Cabo Verde, Portugal, former Yugoslavia, Morocco, and Turkey filled this labor gap (Nientied, 2018; van de Laar & Schoor, 2018). The arrival of the guest workers also meant a need for housing. Improvements and redevelopment of existing residential neighbourhoods, some of which were left by Rotterdammers who have emigrated gave way to guest workers and other low-income residents (Esteban, 2022; Stouten, 2010; van de Laar & Schoor, 2018).

However, I would like to point out that the arrival of the guest workers is not the beginning of the migrant story in Rotterdam. Rotterdam's position as a port and trading station has made it an attractive destination for traders, laborers, and even domestic workers centuries ago. van de Laar and Schoor (2018) indicated that "Rotterdam has always been a place of migration, even before it became one of the leading continental port cities at the end of the nineteenth century" (p. 22). Nevertheless, it was the arrival of the 'non-Western migrants in the 1960s and 1970s [that] challenged Rotterdam's nineteenth-century migration narrative' (van de Laar & Schoor, 2018: p.22) sparking urban revanchist policies.

In Fig. 1, I showed the timeline of the port development and its location. Scholten et al. (2018) indicated three important migration-related periods, first, the positive migration rates between the third part of the nineteenth century until the 1930s which relates to the port expansion to the south bank extending to Waalhaven and Eemhaven. Second is the negative migration rates during the 1960s and 1970s due to the post-war selective migration process. The final period happened in the second half of 1980 which was a period of increasing net migration. An interesting point in the last period is the family reunification[4] that happened in the 1980s and 1990s allowing existing immigrants to bring in their families to live with them (Crul et al., 2018; Dekker & van Breugel, 2018). At the same time, the period saw a rise of labor migrants from Eastern Europe due to the collapse of the Soviet Union in the 1990s (Crul et al., 2018). A substantial portion of the temporary labor migrants were housed in Rotterdam, many of whom came from Poland and worked in the agricultural and horticultural sectors according to the agreement entered by the Dutch government with Poland in the 1990s (Snel et al., 2018).

History tells us that Rotterdam owes much of its economic activities and population growth to migrants (both local and foreign) who have invested in the city by establishing businesses, working in the harbor, agriculture, and domestic labour. The migrants who took root in the city center and south banks, known before as "*boerenzij*" (farmers side) such as Katendrecht, Afrikaanderwijk, and Tarwewijk, formed the working-class image of Rotterdam (Custers & Willems, 2024: p. 3). Feijenoord, located on the northeast side of Afrikaanderwijk, was part of the port expansion at the beginning of the nineteenth century (refer to Fig. 1), and it also became a location for a plague house, orphanage, and tannery, making the area undesirable as a residential area at the time (Wijkprofiel Rotterdam, 2024). As the migrant population settling on the south banks grew, so did the demand for housing. Neighbourhoods such as Feijenoord which used to be an undesirable area for housing were transformed into low-cost housing options, extending to the neighbourhoods of Hillesluis, Bloemhof, and Carnisse to accommodate low-income workers, irrespective of their nationality (see Fig. 2 to see the locations).

As Esteban (2022) noted, it was a "little naïve" to assume that the guest workers who worked in the harbor in the 1950s and 1960s would leave the Netherlands following the conclusion of their contracts (p. 284). Many labor immigrants who settled in the south bank established families after working there for a decade or two working in the area. The work of Puschmann et al. (2015) is particularly illuminating in this aspect, as it examines how the institution of marriage served as a means to integrate into Dutch society. However, the growing number of immigrants especially with a non-western background led to visible tensions. In 1972 riots erupted in Afrikaanderwijk due to the conversion of houses to Turkish pension houses for Turkish labourers (Custers & Willems, 2024;Dekker & van Breugel, 2018 ; van de Laar & Schoor, 2018). 'Dutch native' residents, including dockers (who also have migrant backgrounds) dissatisfied with their housing conditions or the lack of housing rioted against the Turkish landlord resulting in violence in the neighbourhood which lasted for several days (Caner, 2023; Custers & Willems, 2024; Dekker & van Breugel, 2018; van de Laar & Schoor, 2018).

The 1972 riots prompted the Rotterdam city council to 'set a maximum of 5 % of migrant inhabitants to all neighbourhoods in the city (Dekker & van Breugel, 2018: p. 112;Custers & Willems, 2024; van de Laar & Schoor, 2018). Although this policy did not come to fruition due to its unconstitutionality (Custers & Willems, 2024; van de Laar & Schoor, 2018), it represented an initial attempt to disperse, distribute and segregate. In 1978 Rotterdam introduced its first integration policy to improve the social and economic conditions of migrants (Dekker & van Breugel, 2018; van de Laar & Schoor, 2018). Subsequently, several national integration policies were introduced, such as the Ethnic Minorities Policy (1980), Integration Policy (1990), and Integration Policy New Style (2002) (Bruquetas-Callejo et al., 2007). These policies sought to tackle the social and economic improvements necessary for successful integration into Dutch society, such as access to social housing.

It is worth noting that these integration policies happened during the period of urban regeneration and renewal between the 1970s and 1990s. During this period, the spatial development planning approach emphasized mixed-use development, which included residential, commercial, and cultural uses (Esteban, 2022). Rotterdam wanted to make the city more compact while also increasing its attractiveness. To do this, the city needed to diversify its economy and not rely solely on the port by creating commercial spaces and densifying the center to attract commercial investors. The city center was then developed so that business and office spaces were near residential spaces. In 1985 the Inner

[2] The direct translation of *maakbaarheid* in English is makeability. In the Merriam-Webster dictionary makeable means capable of being made, in my dissertation Collective Engagement: From disaster prone to disaster resilient city I referred to *maakbaarheid* as feasibility or the period where things are feasible to do.

[3] The popular countries of destination for Dutch immigrants are Canada, United States of America, Australia, South Africa, New Zealand, Brazil, Israel. This information is derived from the article on Prof. Ton van Kalmthout inaugural lecture by Linda van Putten.

[4] While there was no specific law on family reunification in the 1980s, this was supported by the national law Ethnic Minorities Policy. Family reunification became embedded into law under the Vreemdelingenwet 2000 (Aliens Act 2000), Article 16, which specifies the conditions under which family members of foreign nationals, including refugees, are permitted to join them in the Netherlands.


**Fig. 1.** Port development through time.


**Fig. 2.** Locations of the neighbourhoods in the south bank of Rotterdam.

City Plan for Rotterdam was established with a focus on building cultural and recreational facilities to attract people to live and work in the city (Mccarthy, 1999). These cultural developments, which centered on the city, port, and water, were intended to attract knowledge workers in particular.

Construction of affordable housing was a priority in the period of urban regeneration and renewal, and by the end of the 1980s, the government had renovated 22 historic districts and over 25,000 residences, as well as constructed new houses (Mccarthy, 1999). The 1980s is often regarded as a challenging time for the Dutch economy, but Rotterdam capitalized on its strategic geographic location, notably its relationship with water, and created the Rotterdam Waterfront Program. The program aimed to revitalize the city's waterfront areas, such as the redevelopment of Oude Haven, which seamlessly blends the historic haven and modern architecture Kubuswoningen (Cubic houses), construction of high-rise residential buildings in Leuvehaven, Wijnhaven, and Zalmhaven, the development of the Scheepkwartier, a prime residential area, and Kop van Zuid to accommodate high-rise residential and commercial spaces (Aarts et al., 2012; Esteban, 2022). In all the mentioned developments and areas only Kop van Zuid, a rather small area, is located on the south bank. The remainder of the south's neighbourhoods remained industrial and residential, with a significant concentration of social housing in the area.

## 3. The Rotterdam act and the five *kansenzones*

During the period of urban development, regeneration, and renewal in the 1980s and 1990s, Rotterdam's political atmosphere began to transform. In 2000, the Labour group, which had dominated Rotterdam politics for years, was challenged by a right-wing populist party Leefbaar Rotterdam. The growing discontent of Rotterdammers, who lost jobs during the economic downturn of the 1980s and saw an increase in the number of immigrants due to family reunification, coupled with rising criminality in the city, gave way to populist sentiments. These sentiments were popularized by Pim Fortuyn, who openly criticized the deterioration of many neighbourhoods in Rotterdam and called for measures to stop the influx of immigrants. Pim Fortuyn became Leefbaar Rotterdam's flag bearer and won the 2002 municipal elections in March, reinforcing his stand on safety, stricter immigration, and integration. A few months after the elections, Fortuyn was assassinated on 06 May 2002, nine days before the Second Chamber elections. Fortuyn's death did not decrease the popularity of the Leefbaar Rotterdam rather it further fueled policies aimed at immigrants. Alderman Marco Pastors, who eventually took over the leadership of Leefbaar Rotterdam, was quoted to have called for an *allochtonenstop* (immigrant stop) and suggested constructing a "'fence around Rotterdam' to prevent underprivileged immigrants from moving into the city" in response to Rotterdam

Bureau of Statistics estimate that by 2017, ethnic minorities would comprise 50 % of the city's population (NRC Geen hek rond Rotterdam article as quoted in Dekker & van Breugel, 2018: 117). While the anti-immigrant sentiment did not resonate with the other parties in Rotterdam, there was consensus on the need to limit the number of disadvantaged households in certain neighbourhoods. The focus subsequently shifted from limiting the number of immigrants or ethnic minorities in neighbourhoods, as it had in 1972, to limiting low-income and unemployed people in already disadvantaged neighbourhoods - enter the Rotterdam Act.

### 3.1. The extraordinary Rotterdam act

The Rotterdam Act was intended to restrict newcomers (those who have not lived in the region for more than six years) who are unemployed, have a low income, or have a criminal record from residing in designated areas (Custers & Willems, 2024). This is to prevent the concentration of disadvantaged people in already disadvantaged neighbourhoods in the city. The law was accepted at the national level in 2003 and enforced in 2006 (Dekker & van Breugel, 2018). Based on Article 3 of the Rotterdam Act, municipalities are given the discretion to designate *kansenzones* (opportunity zones) facing socio-economic problems and in need of renewal (Overheid.nl, 2018). *Kansenzones* are further defined as areas with at least 5000 to 30,000 residents, 25 % unemployment, and 45 % low-income households. In 2006, four neighbourhoods in Rotterdam South were chosen: Carnisse, Hillesluis, Oud-Charlois, and Tarwewijk. In 2010, the *kansenzones* expanded to include Bloemhof.

There are three specific exclusionary measures in the Act, first, Article 8 indicates the nature or source of income such as employment, own business, pension benefits, and student financing (Overheid.nl, 2018). Article 9 specifically mentions that municipalities can approve housing permits for individuals in the *kansenzones* who meet the socio-economic characteristics specified in their housing ordinance (Overheid.nl, 2018). This specific article is supported by Housing Act 2014 Article 14 Section 3 which states, “The municipal council may determine in the housing regulation that within the group of housing seekers who are economically or socially bound to the municipality, priority is given to vital professional groups designated in the housing regulation” (Overheid.nl, 2014). For the Municipality of Rotterdam these vital professional groups are “teachers, police officers and people in healthcare” (Gemeente Rotterdam, n.d.-a). Finally, Article 10 refer to refusing housing permits for people aged 16 and over if there is “well-founded suspicion” that they “will lead to an increase in nuisance or crime in that complex, street or area” (Overheid.nl, 2018). Any individual or household that fails to meet the Act's conditions is prohibited from residing in the *kansenzones* by being denied a residence permit.

### 3.2. The kansenzones

The five *kansenzones*—Oud-Charlois, Carnisse, Tarwewijk, Hillesluis, and Bloemhof—are mostly residential with some built from the 1400s (Oud Charlois) and grew as the port extended and needed to house many of its harbor and domestic workers. Fig. 3 below shows the neighbourhood typologies of the five *kansenzones*. The figure also illustrates the settlement patterns from the late 1800s started near the River Maas with most of the settlers living in Oud Charlois. The settlements began to grow along the main transportation routes. By the 1920s, the neighbourhoods of Bloemhof and Hillesluis became denser due to their closer proximity to Rijnhaven, Maashaven, and Feijenoord, which are the old ports, making the areas a popular and attractive choice for harbor workers to settle.

Among the five neighbourhoods, Oud Charlois has the longest history. Oud Charlois, founded in 1462, was an agricultural community centered around the Saint Clement church (Gemeente Rotterdam, 2024). The neighbourhood includes historical city blocks such as the Charloisse Kerksingel, Kaatsbaan, and Zuidhoek. Carnisse, like Oud Charlois, is a pre-war suburb constructed in 1899 to house harbor and domestic workers. The area grew extending to Tarwewijk as you can see in Fig. 3. Carnisse's housing stock comprises two or three-room houses. The location is close to the largest greenspace in Rotterdam, Zuiderpark, which provides residents access to a vast open space and greenery suitable for outdoor activities.

Tarwewijk was built in the 1900s as the port extended and created a demand for additional housing stock. The name reflects the area's history as a site for loading grains and the presence of various grain companies. Bloemhof was built between 1912 and 1930. Within this neighbourhood, the Keifhoek, a housing complex designed by Architect JJP Oud, built between 1928 and 1930, was constructed to provide the lower income working class a better housing option. The Kiefhoek has been recognized as an important architectural heritage building. Finally, the neighbourhood of Hillesluis was built around the same time as Bloemhof, to serve as an extension of housing for low-income workers. The Winkelboulevard Zuid, which offers a diverse array of shops and restaurants offering food and products from the home countries of the local immigrant population, makes Hillesluis one of the busiest neighbourhoods among the five *kansenzones*.

In 2023, the most populated neighbourhood in the five neighbourhoods is Carnisse with 14,610 residents, while the least populated neighbourhood is Hillesluis with 12,305 residents (see Table 1). Between 2013 and 2023, people with a migration background made up an average of 71 % to 76 % of the population in the five neighbourhoods. This is broken down as follows ‘westers’ (western), Morocco, Antilles, Suriname, Turkey, and others. An interesting point to make here is that the ‘*westers*’[5] (western) background referred in the Centraal Bureau voor de Statistiek (CBS) (Statistics Netherlands) are “[p]erson[s] originating from a country in Europe (excluding Turkey), North America and Oceania, or from Indonesia or Japan” (CBS, Person with a western migration background:, 2024).

Average income in 2022 in the five neighbourhoods is at €21,820, this is 43 % and 50 % of the Netherlands and Rotterdam averages respectively. This indicates the socio-economic standing of the residents in the five neighbourhoods at low income. Among the five neighbourhoods, Bloemhof and Hillesluis have the lowest average household income (see Table 2). Home ownership is also low in the five neighbourhoods as indicated in Table 3. There are more than 60 % rental properties in the five neighbourhoods (75 % average). Noticeably, the two neighbourhoods with the lowest average income also have the most percentage of rental properties owned by housing corporations. In the Netherlands, housing corporations play an important role in ensuring that low-income population have access to affordable housing.[6]

### 3.3. Climate-related issues in the five neighbourhoods

In the 1990s, the Netherlands experienced riverine flooding in the Rhine area (1993 and 1995), prompting a transition in the Netherlands' water management strategy from preventive to adaptive. The Netherlands' emphasis on reducing flood risks through infrastructure and engineering solutions has switched to creating policies encouraging climate change adaptation. One example is the Room for the River policy and strategy, which utilizes a parcel of land as a catchment for river overflow. While national discussions about climate change took place, Rotterdam also transitioned to greater climate adaptation strategies, particularly after experiencing pluvial flooding in 1998. Esteban (2022) identified in a timeline that in the late 1990s Rotterdam initiated climate adaptation policies such as the Water Plan 1 and 2 (2001 and

[5] The CBS have indicated their plans to abolish the western and non-western migration classification in 2022, however, as of this writing the data still shows the current classification.

[6] Affordable housing, also known as social housing in the Netherlands.

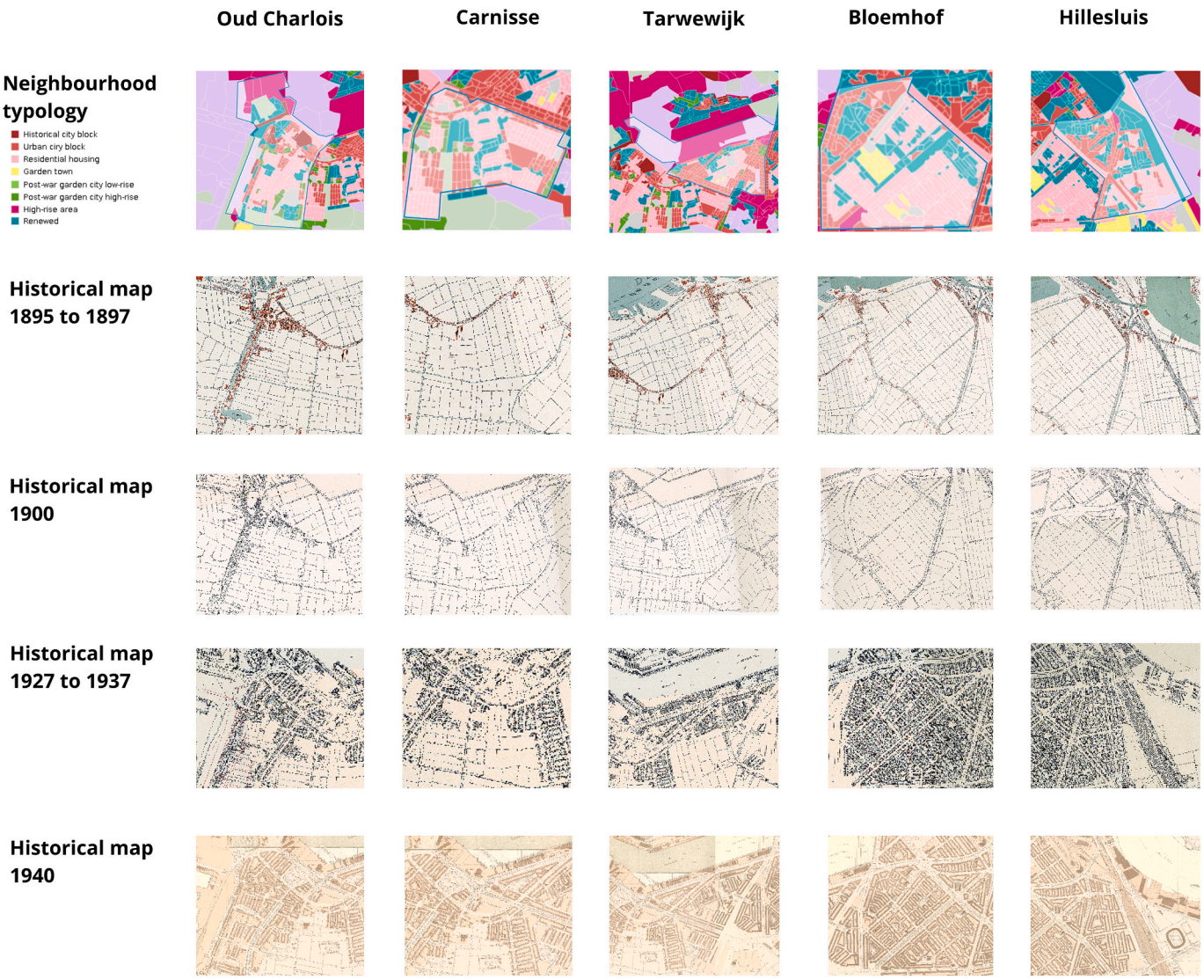



**Fig. 3.** Neighbourhood typology of the *kansenzones*.

2007, respectively), Rotterdam Water City 2035 Architectural Biennale 2005, Rotterdam Climate Initiative (2007), Rotterdam Programme on Sustainability and Climate Change (2010), Rotterdam Climate Change Adaptation Strategy (2013), and Rotterdam Resilience Strategy (2016). These policy documents and strategies helped shape projects such as boosting the city's water retention capacity through the construction of flood basins underneath open spaces (i.e. Benthemplein and Museumpark parking garage), solar panel installations, and community and rooftop gardening, among others. However, additional research was needed to identify and understand the different climate change challenges that Rotterdam faces.

In 2024, following extensive research, Rotterdam released the Rotterdam Weerwoord detailing the various climate change challenges the city is facing at the municipality level to the neighbourhood levels. Six climate change challenges were identified extreme rainfall, drought, groundwater (decrease and increase), land subsidence, heat, and flooding. The publicly available website for the Rotterdam Weerwoord illustrates these climate risks and outlines the city's proposed measures to mitigate and adapt them. Based on this document, flooding from the river is not a major concern in the five neighbourhoods because only a small section lies outside the dike. Only the neighbourhoods of Oud Charlois and Tarwewijk have areas outside the dike, exposing them to floods of up to 5 m in certain locations for a low and high probability flooding (see Fig. 4).

The aforementioned flooding refers to river-related floods where only a small area of Oud Charlois and Tarwewijk are affected (Fig. 4). However, when it comes to flooding from extreme rainfall, all five neighbourhoods experience water nuisance of roughly 30 cms as shown in Fig. 5. The flood risk probabilities have been incorporated into the strategy to create “sponges” within the neighbourhoods. Sponges refer to a strategy where soil is made more absorbent to retain water longer. This strategy is often used in community gardens and playgrounds (see Fig. 6). This helps during periods of drought by stabilizing the groundwater levels. Both drought and groundwater lowering have a significant effect on the issue of land subsidence experienced in the five neighbourhoods. Land subsidence is one of the most pressing issues that require urgent attention since it affects many of the houses in the neighbourhood, particularly those built on wooden poles or without a foundation.

Fig. 7 shows the maps that indicate the areas that have land subsidence issues as well as areas with existing pole rot. Pole rot means that the poles where some of the houses are built are rotting due to the

**Table 1**
Population of the 5 neighbourhoods from 2013 to 2023

| Neighbourhoods | Periods | Population | With a migration background | Dutch background | Non-Western migration background | Western migration background | Morocco | (former) Netherlands Antilles, Aruba | Suriname | Turkey | Other non-Western migration background | Other Western migration background |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bloemhof | 2013 | 13,860 | 10,510 | 3355 | 8995 | 1510 | 1470 | 745 | 1555 | 3525 | 1705 | 935 |
| | 2014 | 13,760 | 10,410 | 3350 | 8935 | 1485 | 1505 | 730 | 1510 | 3535 | 1655 | 890 |
| | 2015 | 13,665 | 10,340 | 3325 | 8810 | 1525 | 1465 | 760 | 1465 | 3465 | 1655 | 910 |
| | 2016 | 13,715 | 10,455 | 3260 | 8860 | 1595 | 1535 | 765 | 1445 | 3415 | 1700 | 925 |
| | 2017 | 13,740 | 10,560 | 3180 | 8850 | 1705 | 1535 | 775 | 1425 | 3375 | 1740 | 1025 |
| | 2018 | 14,030 | 10,790 | 3240 | 9045 | 1745 | 1585 | 805 | 1425 | 3395 | 1835 | 1050 |
| | 2019 | 14,115 | 10,870 | 3245 | 8980 | 1895 | 1575 | 845 | 1395 | 3325 | 1840 | 1175 |
| | 2020 | 14,250 | 10,990 | 3260 | 8985 | 2005 | 1585 | 905 | 1355 | 3290 | 1850 | 1265 |
| | 2021 | 14,250 | 11,025 | 3225 | 8985 | 2040 | 1545 | 980 | 1350 | 3225 | 1885 | 1335 |
| | 2022 | 14,090 | 10,950 | 3140 | 8855 | 2100 | 1505 | 1035 | 1325 | 3130 | 1860 | 1365 |
| | 2023 | 14,045 | 11,015 | 3030 | 8840 | 2175 | 1495 | 1100 | 1300 | 3050 | 1895 | 1465 |
| Hillesluis | 2013 | 11,430 | 9520 | 1910 | 8440 | 1080 | 1535 | 540 | 1325 | 3580 | 1460 | 665 |
| | 2014 | 11,470 | 9590 | 1880 | 8475 | 1115 | 1540 | 550 | 1320 | 3595 | 1470 | 665 |
| | 2015 | 11,860 | 9930 | 1930 | 8745 | 1180 | 1635 | 595 | 1310 | 3605 | 1600 | 740 |
| | 2016 | 11,950 | 9985 | 1965 | 8735 | 1250 | 1680 | 590 | 1305 | 3520 | 1640 | 795 |
| | 2017 | 11,985 | 9985 | 2000 | 8720 | 1265 | 1725 | 590 | 1270 | 3490 | 1645 | 815 |
| | 2018 | 11,910 | 9930 | 1980 | 8640 | 1285 | 1750 | 590 | 1280 | 3365 | 1655 | 795 |
| | 2019 | 11,890 | 9885 | 2005 | 8555 | 1325 | 1740 | 610 | 1285 | 3205 | 1715 | 815 |
| | 2020 | 12,050 | 10,050 | 2000 | 8635 | 1415 | 1800 | 660 | 1265 | 3140 | 1770 | 895 |
| | 2021 | 12,110 | 10,080 | 2030 | 8640 | 1440 | 1820 | 745 | 1230 | 3050 | 1795 | 925 |
| | 2022 | 12,280 | 10,290 | 1990 | 8700 | 1585 | 1820 | 830 | 1230 | 2975 | 1845 | 1010 |
| | 2023 | 12,305 | 10,375 | 1930 | 8660 | 1720 | 1785 | 870 | 1230 | 2895 | 1880 | 1135 |
| Tarwewijk | 2013 | 12,170 | 9430 | 2740 | 7280 | 2150 | 985 | 1050 | 1685 | 1605 | 1950 | 1260 |
| | 2014 | 12,070 | 9415 | 2655 | 7245 | 2170 | 995 | 1060 | 1625 | 1545 | 2020 | 1265 |
| | 2015 | 12,300 | 9625 | 2675 | 7295 | 2335 | 1010 | 1070 | 1590 | 1555 | 2070 | 1315 |
| | 2016 | 12,265 | 9645 | 2620 | 7260 | 2390 | 1020 | 1070 | 1575 | 1520 | 2075 | 1350 |
| | 2017 | 12,225 | 9630 | 2595 | 7155 | 2475 | 1035 | 1055 | 1510 | 1485 | 2070 | 1330 |
| | 2018 | 12,315 | 9685 | 2630 | 7100 | 2585 | 1040 | 1040 | 1540 | 1475 | 2005 | 1405 |
| | 2019 | 12,500 | 9815 | 2685 | 7060 | 2755 | 1040 | 1085 | 1510 | 1420 | 2005 | 1540 |
| | 2020 | 12,605 | 10,000 | 2605 | 7115 | 2885 | 1020 | 1105 | 1505 | 1425 | 2060 | 1640 |
| | 2021 | 12,525 | 10,000 | 2525 | 7120 | 2880 | 1000 | 1120 | 1490 | 1395 | 2115 | 1685 |
| | 2022 | 12,405 | 9950 | 2455 | 7020 | 2925 | 955 | 1145 | 1400 | 1360 | 2160 | 1700 |
| | 2023 | 12,500 | 10,130 | 2370 | 7015 | 3115 | 950 | 1130 | 1370 | 1350 | 2215 | 1910 |
| Oud Charlois | 2013 | 13,085 | 7665 | 5420 | 5900 | 1760 | 950 | 735 | 1335 | 1295 | 1595 | 885 |
| | 2014 | 13,115 | 7800 | 5315 | 5920 | 1875 | 935 | 750 | 1330 | 1270 | 1635 | 915 |
| | 2015 | 13,240 | 7945 | 5295 | 5895 | 2045 | 925 | 735 | 1325 | 1260 | 1650 | 1010 |
| | 2016 | 13,430 | 8205 | 5225 | 6030 | 2175 | 950 | 735 | 1350 | 1310 | 1685 | 1050 |
| | 2017 | 13,560 | 8365 | 5195 | 6080 | 2280 | 935 | 760 | 1340 | 1340 | 1705 | 1105 |
| | 2018 | 13,660 | 8490 | 5170 | 6065 | 2435 | 945 | 765 | 1290 | 1310 | 1755 | 1175 |
| | 2019 | 13,765 | 8605 | 5160 | 6095 | 2515 | 995 | 765 | 1265 | 1295 | 1775 | 1225 |
| | 2020 | 13,840 | 8700 | 5140 | 6200 | 2510 | 1000 | 810 | 1260 | 1325 | 1805 | 1255 |
| | 2021 | 13,850 | 8805 | 5045 | 6230 | 2580 | 1015 | 850 | 1235 | 1290 | 1840 | 1285 |
| | 2022 | 13,935 | 9030 | 4905 | 6205 | 2825 | 985 | 850 | 1185 | 1225 | 1960 | 1455 |
| | 2023 | 14,085 | 9310 | 4775 | 6255 | 3045 | 930 | 885 | 1195 | 1180 | 2065 | 1675 |
| Carnisse | 2013 | 12,740 | 7545 | 5195 | 5140 | 2400 | 680 | 655 | 1305 | 910 | 1585 | 1320 |
| | 2014 | 12,805 | 7745 | 5060 | 5195 | 2545 | 675 | 665 | 1320 | 925 | 1610 | 1370 |
| | 2015 | 13,045 | 8035 | 5010 | 5220 | 2820 | 680 | 635 | 1310 | 915 | 1680 | 1410 |
| | 2016 | 13,185 | 8245 | 4940 | 5275 | 2970 | 685 | 655 | 1300 | 880 | 1755 | 1430 |
| | 2017 | 13,270 | 8450 | 4820 | 5320 | 3125 | 685 | 725 | 1310 | 855 | 1745 | 1500 |
| | 2018 | 13,355 | 8695 | 4660 | 5365 | 3330 | 670 | 760 | 1300 | 825 | 1810 | 1625 |
| | 2019 | 13,665 | 9130 | 4535 | 5455 | 3675 | 670 | 780 | 1295 | 845 | 1865 | 1800 |
| | 2020 | 13,900 | 9490 | 4410 | 5550 | 3930 | 700 | 795 | 1260 | 870 | 1925 | 1955 |
| | 2021 | 14,145 | 9795 | 4350 | 5705 | 4095 | 705 | 915 | 1265 | 880 | 1940 | 2070 |
| | 2022 | 14,515 | 10,180 | 4335 | 5875 | 4305 | 735 | 945 | 1245 | 885 | 2065 | 2310 |
| | 2023 | 14,610 | 10,425 | 4185 | 5905 | 4525 | 750 | 955 | 1220 | 865 | 2115 | 2540 |

Sources: CBS, 2022

**Table 2**
Average income in the five neighbourhoods in comparison to the Netherlands and Rotterdam.

| Year | Average disposable income | | Average income | | | | |
|---|---|---|---|---|---|---|---|
| | Netherlands | Rotterdam | Oud Charlois | Carnisse | Tarwewijk | Bloemhof | Hillesluis |
| 2022 | € 50.900 | € 43.500 | € 24.100 | € 23.600 | € 21.300 | € 20.100 | € 20.000 |
| 2021 | € 48.500 | € 41.300 | € 22.600 | € 21.900 | € 19.800 | € 18.300 | € 18.700 |
| 2020 | € 46.400 | € 39.300 | € 21.600 | € 21.200 | € 19.100 | € 17.700 | € 17.900 |
| 2019 | € 45.700 | € 38.600 | € 20.800 | € 20.300 | € 18.500 | € 17.000 | € 17.400 |
| 2018 | € 42.500 | € 35.700 | € 20.000 | € 19.800 | € 17.600 | € 16.200 | € 16.600 |
| 2017 | € 41.600 | € 34.600 | € 19.200 | € 19.100 | € 16.600 | € 15.500 | € 15.700 |

Source: CBS, 2022

**Table 3**
Percentage of types of homeownerships in the five neighbourhoods (year 2022).

| Neighbourhoods | Owner occupied | Rental properties | Owned by housing corporation | Owned by other landlords |
|---|---|---|---|---|
| Oud Charlois | 32 % | 68 % | 37 % | 31 % |
| Carnisse | 31 % | 69 % | 19 % | 50 % |
| Tarwewijk | 23 % | 77 % | 33 % | 45 % |
| Bloemhof | 17 % | 83 % | 59 % | 24 % |
| Hillesluis | 24 % | 76 % | 47 % | 28 % |

Source: CBS, 2022

lowering of the groundwater level. Apart from this, there are houses built without piles which makes these structures much more vulnerable to subsidence. Generally, land subsidence poses a threat to the integrity of the housing structure and is in urgent need of attention. Encircled in red in Fig. 7 is the location of the five neighbourhoods. The land subsidence map shows the priority areas for intervention; while some areas north of the riverbank are also impacted by land subsidence, there is a considerable concentration of areas in the south, particularly in the five neighbourhoods.

Looking closely at the five neighbourhoods, the foundation types of the houses in these neighbourhoods vary from cement, wood, or non-piled (see Fig. 8). The neighbourhood with the largest non-piled area is Bloemhof, with Hillesluis in second as shown in the area southeast of the neighbourhood. Most of the houses in these neighbourhoods are owned by housing corporations which means that these houses belong to the social housing category. Apart from the land subsidence issues, Fig. 8 also shows that the neighbourhoods suffer from heat. During the summer months especially during heatwaves some areas in the neighbourhoods experience high temperatures up to 45C. Among the five neighbourhoods Bloemhof and Hillesluis experience the highest temperatures.

## 4. Shifting narratives on security and developments in the south of Rotterdam

In the previous sections, I showed that the historical events surrounding the development of the port are enmeshed with migration and the growth of the neighbourhoods in the south. The expansion of the port resulted in an increase in harbor workers, including guest workers, which prompted the construction of settlements in the south. As the port area and its population grew, interethnic tensions became apparent requiring governmental measures aimed at addressing emerging issues

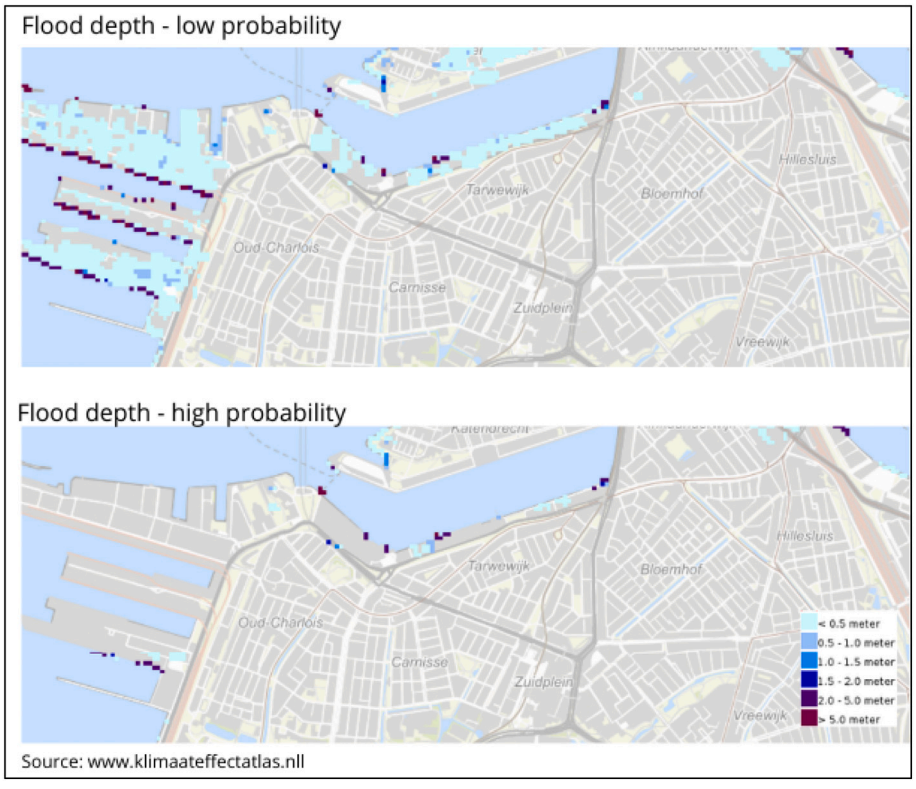



**Fig. 4.** Flood depth probability (from the river) in the five neighbourhoods.

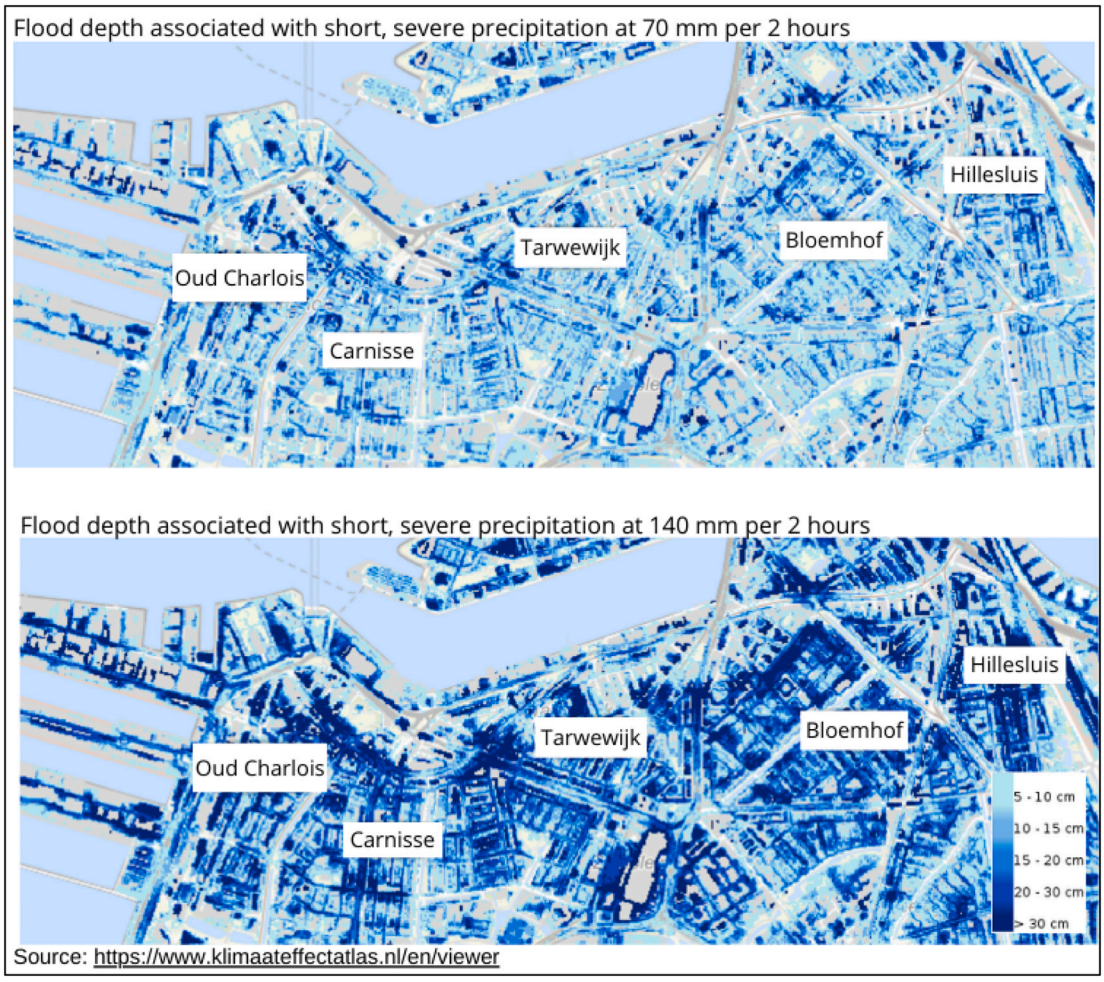



**Fig. 5.** Flooding due to severe precipitation in the five neighbourhoods.


**Fig. 6.** Community level sponge strategies.

of housing, employment, and poverty. The housing problem, which became a catalyst for tensions between (and among) ethnic minorities and Dutch locals, prompted the Municipality of Rotterdam to draft and implement the first integration policy. This integration policy was intended to improve the social and economic circumstances of immigrants.

While it is not my purpose in this study to describe in detail the integration policies, it is necessary to share in this section the shifting policy framings and how these policies affect the spaces where the immigrants live. Rotterdam's integration policy, which was the first of its kind in the Netherlands, offered a solution to a general housing problem – characterized by poor conditions or a lack of available housing. The policy posits that enhancing the employability of immigrants through effective integration can significantly improve their opportunities to

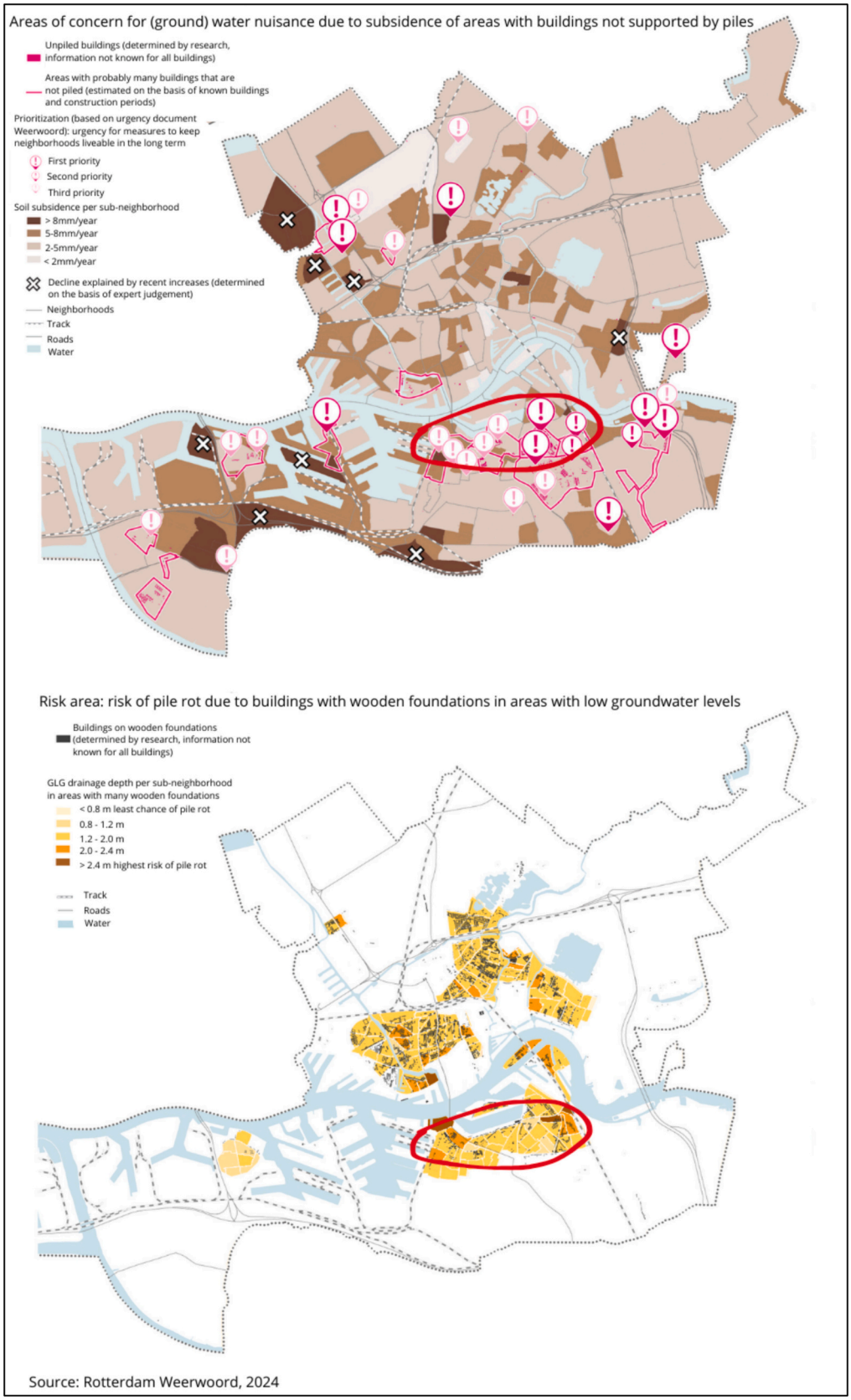



**Fig. 7.** Maps showing the neighbourhoods with land subsidence and pole rot issues in Rotterdam.

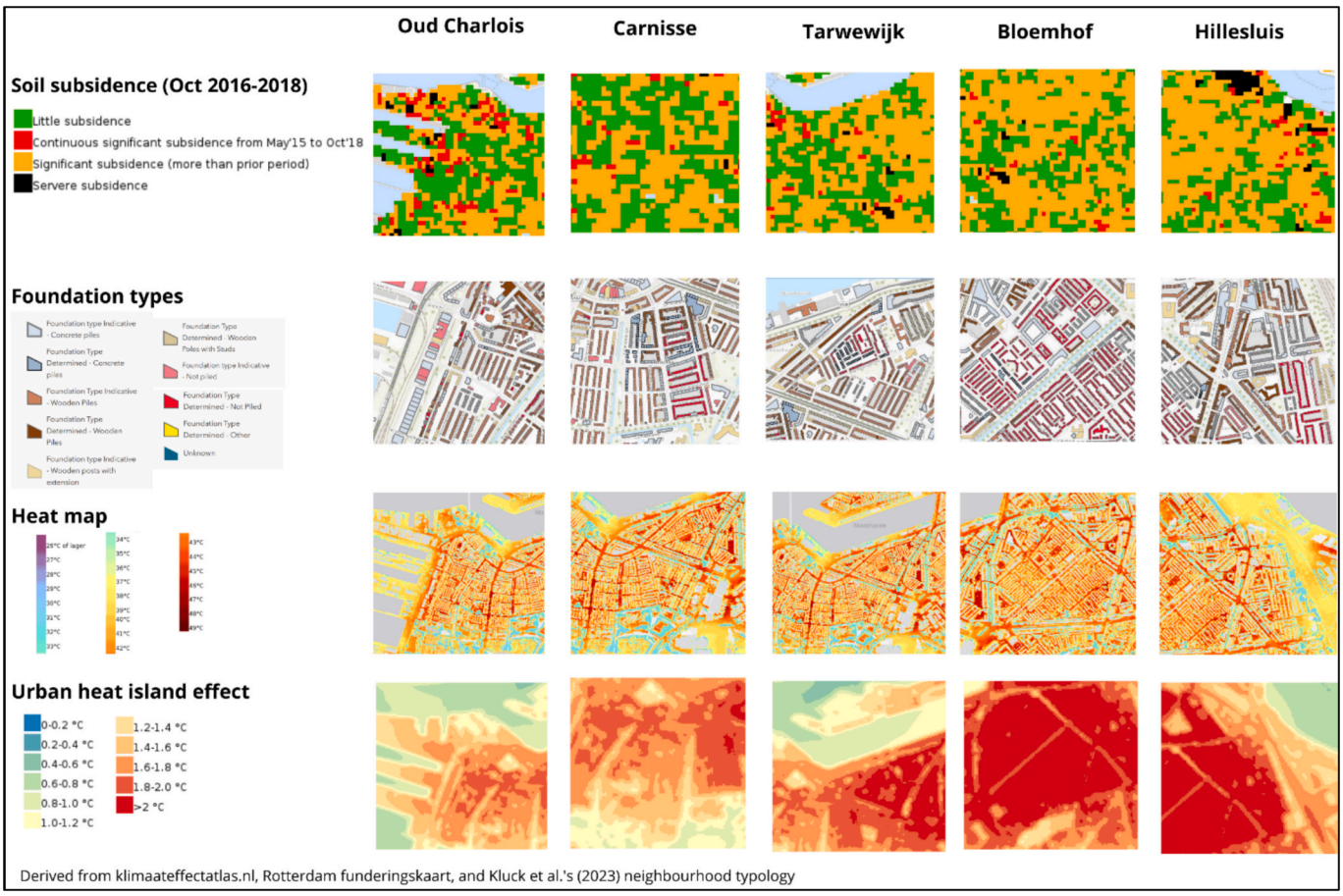



**Fig. 8.** Land subsidence, foundation types and heat affecting the five neighbourhoods.

find housing. According to analysis by Dekker and van Breugel (2018), this policy benefited not only immigrants but also the local residents by increasing labor market participation and promoting inter-ethnic contact. In the succeeding periods, from 1985 to 2002, integration policies were specifically developed to support immigrants in successfully integrating and participating in society. Dekker and van Breugel (2018) described this phase as 'targeted benefitting'. At the outset of this period, the policy initiatives were intended to improve immigrants' socioeconomic conditions by creating job opportunities and teaching the Dutch language in community centers. In 1998, this focus shifted to enhancing the participation of immigrants through cultural expression in the city.

From 2002 onwards, the integration policies moved toward the direction of 'burdening' which as Drekker and van Breugel (2018) defined are policies that "perceive [] the target group's behaviour as undesirable and aim for changes in certain behaviour" (p. 111). This can be traced to a shift in Rotterdam's political climate and the targeting of immigrants as the cause of increased crime and neighbourhood deterioration. While these sentiments persisted, the Rotterdam Act (2006) reframed the issue to focus on low-income households, individuals, and neighbourhoods rather than immigrants.

The Rotterdam Act's specified *kansenzones* are among the city's lowest-income districts, with an immigrant population of 76 % on average. Criminality in these areas is also at the highest prompting policies aimed at changing the social and economic make-up of the neighbourhoods through liveability measures. However, these measures contain "causal assumptions" on safety features such as "the higher the number of social security claimants and people from ethnic backgrounds [] the less safe neighbourhoods will be" (Noordegraaf, 2008: 231). Further, studies have also shown the overrepresentation of ethnic minorities and migrants in criminal statistics and justice systems. These studies indicate that non-western migrants from Morocco, Turkey, and Suriname had greater rates of incarceration and police contact in the Netherlands than the native population (Bezemer et al., 2024; Blokland et al., 2010; Leun & Woude, 2011).

While the presence of crime in these neighbourhoods may be true, the ethnic composition of the neighbourhoods has also been subject to 'policing' in the past. Before the Rotterdam Act, the municipality put together a team composed of municipal employees from the housing bureau, social services, public housing, local tax authority, and the police in 2001 to conduct house visits in Strevelsweg street (located in Bloemhof) (Schinkel & van den Berg, 2011). The house visits carried out in Strevelsweg resulted in "forcing six inhabitants to participate in drug rehabilitation programs, 85 to a social project, relocating 48, [] fining 29, and closing hemp plants" (Schinkel & van den Berg, 2011: 1934). These results were deemed successful that following Leefbaar Rotterdam's election in 2002, 'Intervention Teams' were formed to continue the practice in specified 'hotspots'. Hotspots are specific areas at street level in the neighbourhoods assigned by the municipality with a high concentration of "security issues". This can range from physical, social, and economic problems to the specific *jeugdoverlast* (youth nuisance) (Blokland et al., 2010; Lande, 2019) "suspected" of illegal activities by simply hanging out together. Most of the hotspots can be found in the *kansenzones* (Bloemhof, Tarwewijk, Hillesluis, and Oud Charlois). Further to this day, by virtue of the decision of the Netherlands Second Chamber on 25 August 2016, Strevelsweg remains a targeted area under Article 3 of the Rotterdam Act (Tweede Kamer der Staten-Generaal, 2016).

In Fig. 9, it can be seen that the shifting integration typologies have been profoundly influenced by the political events that transpired in the

city. The Rotterdam Act and the associated activities leading up to its enactment signify a notable shift from housing insecurity in the 1970s to safety and security, particularly concerning crime, in the 2000s. In addition to these shifts in integration approaches, there was a shift in the approach to climate change because of the Netherlands near-flood and pluvial flooding events in the 1990s. Overall, urban planning and development in the city shifted toward a more climate-adaptive strategy in the 2000s, resulting in highlighting Rotterdam's physical and environmental challenges in policy documents. The recent introduction of the Rotterdam Weerwoord presented the six climate change issues affecting the city and showed areas that require immediate attention in terms of climate change challenges, one of which being land subsidence.

The Rotterdam Act and the environmental and climate change policies are not informed by one another. However, these policies were developed and implemented during the same period as depicted in Fig. 9. The move from mitigation to climate change adaptation is a national government policy as well as a city-level initiative. Climate change-related risks require immediate attention, particularly in urban areas where large populations may be affected. Climate change policy documents such as Rotterdam Weerwoord have also shown that disadvantaged areas, such as the *kansenzones*, face the most pressing climate change challenges. The neighbourhoods suffer from the urban heat island effect[7] where residents feel up to 41 to 45C during high temperatures. Many of the houses in the neighbourhoods are not well-ventilated with some houses being of poor quality. These five neighbourhoods also house an average of 43.7 % of persons over the age of 65 who are vulnerable to heat (Klimaateffectatlas, n.d.).

On top of this, the issue of land subsidence presents a significant challenge in these neighbourhoods requiring the municipality of Rotterdam to approach this problem with caution due to the multiple sensitivities surrounding the topic. This includes the insurance companies' claim that houses affected by land subsidence are deemed uninsurable (NL Times, 2021). This becomes a problem especially in areas like the *kansenzones* where there are 75 % rental properties for low-income residents. Land subsidence studies began in 2022 to evaluate various measures, including cost-benefit analyses, aimed at addressing the land subsidence issues faced in different neighbourhoods of Rotterdam experiencing this problem, in addition to the five *kansenzones*. Research suggests that the costs associated with renovating housing properties to mitigate damages caused by land subsidence outweigh the financial risks that such renovations aim to prevent (Jansen, 2023). Conversely, demolishing the properties presents a more cost-effective solution and can further increase the number of units to meet both the demand and intended revenues. However, there is concern over the possibility of displacement and changing the character of the neighbourhood.

In October 2023, the municipality of Rotterdam decided to disclose its results to the public concerning Bloemhof (Gemeente Rotterdam, n.d.-b). This includes the expense of repairing sinking homes, as well as the options available to the municipality, housing corporations, and landowners to address this issue together. Furthermore, the housing corporation Woonstad Rotterdam has engaged in awareness-raising activities by providing information on their website on the strategies that they will undertake for housing blocks under their management (Woonstad Rotterdam, 2023). They have also established an office in Bloemhof where the residents and even researchers can visit to obtain information.

Currently, research and planning are underway to establish the best strategy for dealing with land subsidence and foundation issues. At the same time, private developers are actively building housing blocks in the five neighbourhoods. Some of these new constructions are taking shape on previously vacant open spaces, while other developments are replacing older housing blocks resulting in modern structures that contrast the existing character of the neighbourhoods. These new developments are also part of the strategy under the Nationaal Programma Rotterdam Zuid (NPRZ) (National Programme Rotterdam South). The NPRZ was launched in 2013 by Mayor Aboutaleb to develop interventions to address urban problems in the neighbourhoods (NPRZ, n.d.; Ministry of Housing and Spatial Planning, n.d.; Rijnmond, 2022). The NPRZ is mainly informed by the Rotterdam Act. It aims to achieve 'liveability and safety in Rotterdam South' through talent development, economic strengthening, and physical, and quality improvements. The program considers that work and the retention of growing income earners are important aspects of achieving liveability. Through new developments in the south, the program strives to attract more income-earning households and fewer welfare recipients, resulting in a more productive and educated society. While there were shifting narratives in the integration and climate change strategies, there is a consistent theme running through the urban development in Rotterdam. The period of *maakbaarheid* (1960 to 1970) showcases 'wealth, knowledge, and power", the Inner City Plan (1985) aims to attract knowledge workers, and now with the NPRZ the aim is to have a productive and educated society.

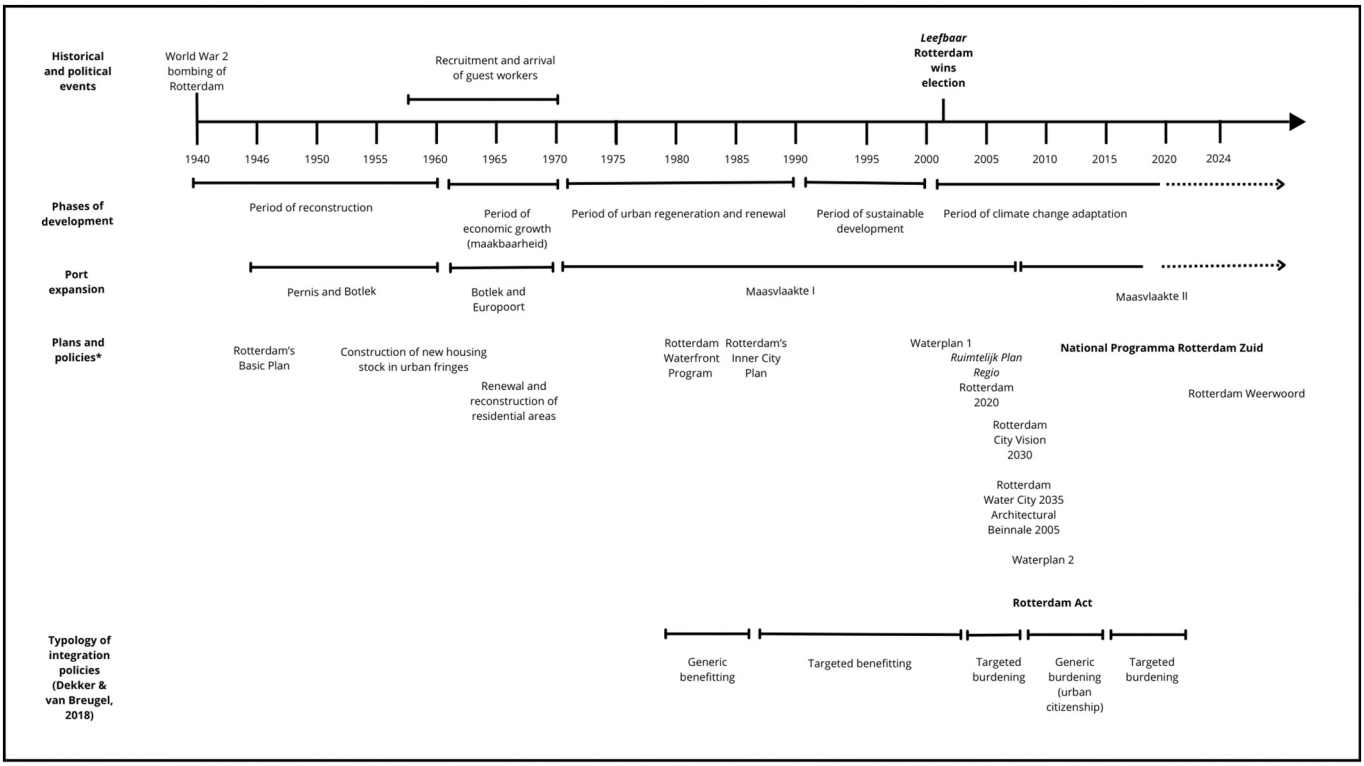
## 5. Conclusions

In this research, I have shown how settlements occupied by immigrants and locals have emerged in Rotterdam South over the years due to their relationship with the port. The fact that the residential locations of the immigrants, or in general low-income households, are also affected by climate change related issues is not because they were deliberately placed there by the government. This is part of a larger issue on climate change risks that science needs to account for, however from what we know in this research is that the concentration of the developments in the center and north of Rotterdam post-war that focused on exhibiting 'wealth, knowledge, and power' created a blindspot on the plight of those in the south of Rotterdam.

The spaces occupied by immigrants since the port's development stemmed from the need to be closer to the place of work for which they were hired. The enactment of the Rotterdam Act appears to be reclaiming these spaces excluding individuals and households many of whom fall under the category of immigrants allegedly causing nuisance in these neighbourhoods. The policy becomes the legal instrument for establishing a "more productive and educated society" that can contribute to the city by allowing those who fit into the requirements of the Act to enter these spaces. The Act, along with the strategies and plans it has shaped for the development of Rotterdam South, has caused a level of animosity between the low-income residents (both immigrants and non-immigrants) and the government. This tension stems from past policing practices in the neighbourhoods and the demolition of housing blocks to make way for new developments within and outside of the five *kansenzones*.

Climate change related issues such as land subsidence affecting the integrity of the built environment, in this case housing structures, are seriously being discussed at the municipal, regional, and national levels. According to recent estimates from leading commercial banks in the Netherlands, foundation problems caused by land subsidence affect around 10 % of properties across the country (ING, Rabobank, and ABN AMRO, 2024). However, exclusionary policies, like the Rotterdam Act, make it more difficult for well-meaning efforts, such as climate adaptation strategies, to be accepted in communities where residents have experienced neglect and stigmatization. If people are not disengaged or simply apathetic, there will always be doubts about the intentions for the development in these areas. Are climate change adaptation strategies necessary in the *kansenzones*? Yes. Are the houses in these areas in need of renovation or redevelopment? Yes. However, cost-benefit analyses have shown that dwellings in these areas, particularly those constructed as mass low-cost housing, would be more expensive to renovate or refurbish than it is to demolish. This brings in the question of for

[7] Urban heat island effect refers to urban areas that experience higher temperatures than the surrounding areas.




Derived from Esteban, 2022; Drekker and van Breugel, 2018

Note: *Plans and policies from the 2000 shifted from working against water (mitigation) to working with water (adaptation) environmental and climate related policies from that period until present are Rotterdam Climate Initiative (2007), Sustainability Guide for Rotterdam (2010), Rotterdam Programme on Sustainability and Climate Change (2010), Rotterdam Climate Change Adaptation Strategy (2013), Rotterdam Resilience Strategy (2016), and Rotterdam Weerwoord (2024)

**Fig. 9.** Historical, political and planning timeline.

whom the climate change adaptation strategies are in these areas. Is the objective of developing a liveable and climate-adaptive area in the *kansenzones* for the benefit of current residents or for new entrants? The argument I am attempting to make in this research is that climate change adaptation strategies, while rightfully focusing on the physical, environmental, and economic dimensions but lack a deeper understanding of the historical and political contexts to which the city and its residents are subjected circumscribe issues of inequality and justice.

This argument also holds on urban planning and climate change adaptation projects that claim transdisciplinarity when they still rely heavily on technocratic approaches. This is not to say that we should abandon the idea of transdisciplinarity, rather, I am calling for greater self-awareness regarding the nature of such projects and accountability to avoid fostering false consciousness. There is a pressing need to be more reflective on such approaches that extend beyond simply proposing solutions that only touch the surface. Anchoring intersectional thinking in critically analysing climate change adaptation strategies, urban development policies, and marginalized populations helps in recognizing the connections and fragmentations present in institutional systems. Critical reflections on historical and political events offer an understanding of how societies, groups of people, neighbourhoods, and moreso cities have ended up the way it is.

Hiding behind the guise of a neutral goal to make a more productive, livable neighbourhood or society, or even the idea of creating a 'social mix' to improve social cohesion in neighbourhoods, exclusionary policies achieve the contrary. This may be seen not only in the Rotterdam case, but also in the Brussels revitalization initiatives, Danish "ghettos" and Sweden's dispersal policy, where ethnicity, low-income, and employment has been a factor for exclusion (Seemann, 2020; Olsen & Larsen, 2022; Baeten, 2001; Andersson et al., 2010). This clearly shows that exclusionary policies create long-term social and economic vulnerabilities. Climate change-related issues appearing in disadvantaged neighbourhoods add another layer to these vulnerabilities.

To address these intersections and promote inclusiveness in urban development and climate adaptation projects, there must first be a clear framing around structural inequality. Rather than simply seeking technical solutions by asking, 'How can we adapt to climate change?', we should reframe the question to 'How can climate adaptation strategies achieve fair and just urban outcomes?' or 'What historical, political, economic, or spatial processes have aggravated inequality?'. This shifts the focus from technocratic solutions to structural change. Second, projects should avoid aligning with dominant paradigms and agendas, as these prioritize expert knowledge, depoliticize concepts such as resilience, risk, and vulnerability, and sideline lived realities of residents. Failing to see these realities and lived experiences reinforces epistemic injustices and upholds the very power structures that perpetuate marginalization. Good transdisciplinary urban development and climate adaptation projects should utilize reflective approaches to problematize the system that created these vulnerabilities and contested political spaces. Finally, policies must emphasize genuine collaboration, rather than using co-production or co-creation to advance dominant institutional agendas. What is needed is mutual adaptation of roles in urban development and climate adaptation (Ansell & Gash, 2008; Esteban, 2025, 2022, 2020), where all stakeholders, including disadvantaged communities, are recognized not as problems to be solved but as legitimate knowledge holders whose lived experiences are as valuable as expert input. This can help overcome structural inequalities, redistribute power and decision-making, and build trust. An example of this is the Community Land Trust Brussels model which shows how inclusive, bottom-up governance can lead to socially just and climate resilient urban outcomes (Community Land Trust Brussels, 2024).

Climate adaptation strategies and urban development projects can only truly contribute to meaningful scientific, societal, and equitable outcomes if they are led with a deeper understanding of the intersectionalities present within specific locations. Intersectionality facilitates the cognitive recognition of injustices, serving as an initial step to

addressing social (climate) justice. Acknowledgment and awareness shape equitable transformative approaches that contribute to the procedural dimension of justice. More reflection needs to be done to examine the oppressive systems and structures that reinforce inequality. My thinking is that in the absence of critically reflecting on these intersectionalities in climate change adaptation strategies we risk maintaining not only the status quo but further augmenting inequalities amid these uncertain times.

## CRediT authorship contribution statement

**Theresa Audrey O. Esteban:** Writing – review & editing, Writing – original draft, Visualization, Validation, Project administration, Methodology, Investigation, Formal analysis, Conceptualization.

## Declaration of competing interest

The author declares that there is no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Acknowledgements

I would like to thank the Independent Social Research Foundation especially the organizers of the "Migration and Climate Change" conference 07-09 October 2024 in Warsaw, Poland, fellow participants, and panellists for the safe yet critical space they provided. They saw the value in the depth of my work, precisely because it dared to go against the grain. I would also like to thank my dear friend Dhika for our summer "shut up and write" sessions, which helped both of us make progress on our individual projects. Work by the author was supported by a grant from the Dutch Research Council (NWA.1389.20.224).

## Data availability

Data indicated in the text of the manuscript are publicly available and properly referenced in the article.

## References

Aarts, M., Daamen, T., Huijs, M., & De Vries, W. (2012). Port-city development in Rotterdam: A true love story. *Urban-e, 2*(3), 1–28. https://resolver.tudelft.nl/uuid:0795dd04-63b0-4fed-a04e-58929818fb23.

Allecijfers.nl. (22 November 2024). Statistics municipality of Rotterdam. Retrieved from https://allecijfers.nl/gemeente/rotterdam/. (Accessed 26 November 2024).

Andersson, R., Bråmå, Å., & Holmqvist, E. (2010). Counteracting segregation: Swedish policies and experiences. *Housing Studies, 25*(2), 237–256. https://doi.org/10.1080/02673030903561859

Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory, 18*(4), 543–571. https://doi.org/10.1093/jopart/mum032

Baeten, G. (2001). The Europeanization of brussels and the urbanization of 'Europe': Hybridizing the City. Empowerment and disempowerment in the EU District. *European Urban and Regional Studies, 8*(2), 117–130. https://doi.org/10.1177/096977640100800203

Bartel, A. P. (1989). Where do the new U.S. immigrants live? *Journal of Labor Economics, 7*(4), 371–391. https://doi.org/10.1086/298213, 1989 Oct 12283454.

Beckers, P., & Boschman, S. (2019). Residential choices of foreign highly skilled workers in the Netherlands and the role of neighbourhood and urban regional characteristics. *Urban Studies, 56*(4), 760–777. https://doi.org/10.1177/0042098017741262

Bezemer, W. E., Born, M. P., & Leerkes, A. S. (2024). Addressing ethnic differences in the validity of self-reported criminal behaviour through a social desirability measure. *Journal of Quantitative Criminology, 40*, 257–284. https://doi.org/10.1007/s10940-023-09567-y

Blokland, A. A. J., Nieuwbeerta, P., & Bernasco, W. (2010). Criminaliteit en etniciteit. Criminele carrières van autochtone en allochtone jongeren uit het geboortecohort 1984. *Tijdschrift voor Criminologie, 52*(2), 122–152. https://pure.rug.nl/ws/portalfiles/portal/14665131/2010-BloklandA-Criminaliteit.pdf.

Brueckner, J. K., Thisse, J.-F., & Zenou, Y. (1999). Why is Central Paris rich and downtown Detroit poor?: An amenity-based theory. *European Economic Review, 43*(1), 91–107. Elsevier. January.

Bruquetas-Callejo, M., Garces-Mascarenas, B., Penninx, R., & Scholten, P. W. A. (2007). *Policy making related to immigration and integration. The Dutch case: A policy analysis.* IMISCOE Working Paper.

Campbell, J. R. (2014). Climate-change migration in the Pacific. *The Contemporary Pacific, 26*(1), 1–28. Project MUSE https://doi.org/10.1353/cp.2014.0023.

Caner, C. (2023). (Re)membering the riots in Afrikaanderwijk in 1972 or guest, host, ghos-ti. Retrieved from https://vimeo.com/849113900. (Accessed 11 September 2024).

CBS. (2022). New classification of population by origin. Publication date 18 March 2022. Retrieved from: https://www.cbs.nl/en-gb/longread/statistische-trends/2022/new-classification-of-population-by-origin?onepage=true. (Accessed 11 September 2024).

CBS. (2024). Person with a western migration background. Retrieved from: https://www.cbs.nl/en-gb/our-services/methods/definitions/person-with-a-western-migration-background. (Accessed 11 September 2024).

Chiang, L.-H. N., & Hsu, J.-C. R. (2005). Locational decisions and residential preferences of Taiwanese immigrants in Australia. *GeoJournal, 64*, 75–89. https://doi.org/10.1007/s10708-005-3927-0

Chiswick, B. R., & Miller, P. W. (2004). Where immigrants settle in the United States. *Journal of Comparative Policy Analysis: Research and Practice, 6*(2), 185–197. https://doi.org/10.1380/1387698042000273479

Cole, L. W., & Foster, S. R. (2001). *From the ground up: Environmental racism and the rise of the environmental justice movement. 34*. NYU Press. http://www.jstor.org/stable/j.ctt9qgj6v.

Community Land Trust Brussels. (2024). Community land trust Brussels - homepage. https://cltb.be/en/.

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum, 1989*(1), Article 8. http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8.

Crul, M., Scholten, P., & van de Laar, P. (2018). Conclusions: Coming to terms with Superdiversity? In P. Scholten, M. Crul, & P. van de Laar (Eds.), *IMISCOE research seriesComing to terms with Superdiversity*. Cham: Springer. https://doi.org/10.1007/978-3-319-96041-8_12.

Custers, G., & Willems, J. J. (2024). Rotterdam in the 21st century: From 'sick man' to 'capital of cool'. *Cities, 150*, Article 105009. https://doi.org/10.1016/j.cities.2024.105009

Dekker, R., & van Breugel, I. (2018). 'Walking the walk' rather than 'talking the talk' of superdiversity: Continuity and change in the development of Rotterdam's immigrant integration policies. In P. Scholten, M. Crul, & P. van de Laar (Eds.), *IMISCOE research seriesComing to terms with superdiversity*. Cham: Springer. https://doi.org/10.1007/978-3-319-960418.

Diem, A. (1967). Urban development problems of the ports of Rotterdam and Amsterdam. *Cahiers de géographie du Québec, 11*(22), 5–25. https://www.erudit.org/en/journals/cgq/1967-v11-n22-cgq2596/020678ar/abstract/.

Esteban, T. A. O. (2020). Building resilience through collective engagement. *Architecture_mps, 17*(1), 1–15. https://doi.org/10.14324/111.444.amps.2020v17i1.001, 2020.

Esteban, T. A. O. (2022). *Collective engagement: From disaster-prone to disaster-resilient city*. Erasmus University Rotterdam. https://pure.eur.nl/en/publications/collective-engagement-from-disaster-prone-to-disaster-resilient-c.

Esteban, T. A. O. (2025). Collective engagement as a navigational framework for urban resilience. *Cities, 161*. https://doi.org/10.1016/j.cities.2025.105900

Findlay, A. M. (2011). Migrant destinations in an era of environmental change. *Global Environmental Change, 21*, S50–S58. https://doi.org/10.1016/j.gloenvcha.2011.09.004

Fricker, M. (2007). *Epistemic injustice: Power and the ethics of knowing.* New York: Oxford University Press Inc.

Gemeente Rotterdam. (2024). 2014–2024 Rotterdam Neighbourhood Profile. Retrieved from https://wijkprofiel.rotterdam.nl/nl/2024/rotterdam. (Accessed 26 August 2024).

Gemeente Rotterdam. (n.d.-a) Maatschappelijke beroepen. Retrieved from: https://www.rotterdam.nl/maatschappelijke-beroepen. Accessed: 26 August 2024.

Gemeente Rotterdam, (n.d.-b) MijnBloemhof. Retrieved from: https://www.rotterdam.nl/mijnbloemhof. Accessed: 26 November 2024.

Gemenne, F. (2015). Migration as a climate adaptation strategy. In *State of the world 2015*. Washington, DC: Island Press. https://doi.org/10.5822/978-1-61091-611-0_9.

van Gent, W., Hochstenbach, C., & Uitermark, J. (2018). Exclusion as urban policy: The Dutch "act on extraordinary measures for urban problems". *Urban Studies, 55*(11), 2337–2353. https://doi.org/10.1177/0042098017717214

Gerten, C., Hanhörster, H., Hans, N., & Liebig, S. (2022). How to identify and typify arrival spaces in European cities—A methodological approach. *Population, Space and Place, 29*(Issue 2), 1–15. https://doi.org/10.1002/psp.2604

Harding, S. (1986). *The science question in feminism. 6(4)* p. 400). Cornell University Press. Bulletin of Science, Technology & Society. https://doi.org/10.1177/027046768600600481

Hill Collins, P. (2000). *Black feminist thought: Knowledge, consciousness, and the politics of empowerment* (2nd ed.). Routledge. https://doi.org/10.4324/9780203900055

ING, Rabobank & ABN AMRO. (2024). Climate change and the Dutch housing market: Insights and policy guidance based on a comprehensive literature review. https://assets.ctfassets.net/1u811bvgvthc/413iHFZmZoDUq8iWjYfpX3/0c030283d62b0878012a1d41a084845a/Beleidssynthese.pdf.

Jansen, D. (2023). Land subsidence related damage to residential real estate and cost-effective adaptation strategies. Master Thesis. Delft University of Technology. https://repository.tudelft.nl/record/uuid:fda6b963-ad2f-4e52-9b51-17619c6cd325.

Jayet, H., Rayp, G., Ruyssen, I., & Ukrayinchuk, N. (2016). Immigrants' location choice in Belgium. *The Annals of Regional Science, 57*, 63–89. https://doi.org/10.1007/s00168-016-0761-x

Jordan, R. (2018). *The Dutch urban areas act: A black liberation perspective on the policy of exclusion. Master's thesis. Department of Urban Studies and Planning. Massachusetts Institute of Technology*.
Klimaateffectatlas. (n.d.) Neighbourhood typology. Retrieved from: https://www.klimaateffectatlas.nl/en/neighbourhood-typology Accessed: 11 September 2024.
van de Laar, P., & Schoor, A.v.d. (2018). Rotterdam's Superdiversity from a historical perspective (1600–1980). In P. Scholten, M. Crul, & P. van de Laar (Eds.), *IMISCOE Research seriesComing to terms with superdiversity*. Cham: Springer. http://hdl.handle.net/1765/112498.
Lande, L.v.d. (2019). Ogen op straat in Rotterdam Zuid: een etnografische studie naar Jong Burgerblauw binnen het stedelijk veiligheidsbeleid in Nederland. Masterscriptie Sociologie, Erasmus Universiteit Rotterdam, June 17. Retrieved from: http://hdl.handle.net/2105/50361. (Accessed 11 September 2024).
Leun, J. P.v.d., & Woude, M. A. H.v.d. (2011). Ethnic profiling in the Netherlands? A reflection on expanding preventive powers, ethnic profiling and a changing social and political context. *Policing and Society, 21*(4), 444–455. https://doi.org/10.1080/10439463.2011.610194
Levkovich, O., & Rouwendal, J. (2014). *Location choices of highly educated foreign workers: The importance of urban amenities*. Tinbergen Institute Discussion Paper 14–093/VIII. https://doi.org/10.2139/ssrn.2469803. June 29, 2014.
McCall, L. (2001). *Complex inequality: Gender, class and race in the new economy* (1st ed.). Routledge. https://doi.org/10.4324/9780203902455
Mccarthy, J. (1999). The redevelopment of Rotterdam since 1945. *Planning Perspectives, 14*(3), 291–309. https://doi.org/10.1080/026654399364247
Ministry of Housing and Spatial Planning. (n.d.) National Program for Liveability and Safety. Retrieved from: https://www.volkshuisvestingnederland.nl/onderwerpen/programma-leefbaarheid-en-veiligheid. Accessed: 28 October 2024.
Musterd, S., & Muus, P. (1995). Immigration–mismatches in labour, housing and space: The effects of immigration of several nationalities with regard to the Netherlands. *Applied Geography, 15*(3), 279–296. https://doi.org/10.1016/0143-6228(95.d.)00007-q, 1995 Jul 12291186.
National Programma Rotterdam Zuid. (n.d.). About NPRZ. NPRZ 2017-2024. Retrieved from: https://nprz.nl/over-nprz/nprz/over-ons accessed: 11 September 2024.
Nguyen, Q., Spilker, G., Koubi, V., & Böhmelt, T. (2024). How sudden- versus slow-onset environmental events affect self-identification as an environmental migrant: Evidence from Vietnamese and Kenyan survey data. *PLoS One, 19*(1), Article e0297079. https://doi.org/10.1371/journal.pone.0297079
Nientied, P. (2018). Hybrid urban identity—The case of Rotterdam. *Current Urban Studies, 6*(01), 152–173. https://doi.org/10.4236/cus.2018.61008
Noordegraaf, M. (2008). Meanings of measurement. *Public Management Review, 10*(2), 221–239. https://doi.org/10.1080/14719030801928672
Notteboom, T., Pallis, A., & Rodrigue, J.-P. (2022). *Port economics, management and policy*. New York: Routledge.
Olsen, S. H., & Larsen, H. G. (2022). State-led stigmatisation of place and the politics of the exception. *Environment and Planning C, 41*(1), 148–164. https://doi.org/10.1177/23996544221119387
NL Times. (28 October 2021). Climate change damage becoming increasingly uninsurable, AFM warns. NL Times. Retrieved from: https://nltimes.nl/2021/10/28/climate-change-damage-becoming-increasingly-uninsurable-afm-warns. (Accessed 26 November 2024).
Overheid.nl. (04 June 2014). Huisvestingswet 2014. Retrieved from: https://wetten.overheid.nl/BWBR0035303/2024-07-01/#Hoofdstuk2_Paragraaf2_Artikel14. Accessed: 24 November 2024.
Overheid.nl. (13 June 2018). Wet bijzondere maatregelen grootstedelijke problematiek. Retrieved from: https://wetten.overheid.nl/BWBR0019388/2018-06-13. (Accessed 6 November 2024).
Puschmann, P., Van den Driessche, N., Grönberg, P.-O., Van de Putte, B., & Matthijs, K. (2015). From outsiders to insiders? partner choice and marriage among internal migrants in Antwerp, Rotterdam & Stockholm 1850–1930. *Journal Historical Social Research, 40*(2015), 319–358. https://doi.org/10.12759/hsr.40.2015.2.319–358, 2.
van Putten, L. (2021). Bombastic publications encouraged millions of Dutch people to emigrate, 20 September 2021. Leiden University https://www.universiteitleiden.nl/en/news/2021/09/bombastic-publications-encouraged-millions-of-dutch-people-to-emigrate.
Rijnmond. (11 July 2022). 10 jaar nationaal programma Rotterdam Zuid: Dit is wat het heeft opgeleverd. Retrieved from: https://www.rijnmond.nl/nieuws/1523457/10-jaar-nationaal-programma-rotterdam-zuid-dit-is-wat-het-heeft-opgeleverd. (Accessed 28 October 2024).
Roy, A. (2010). *Poverty capital: Microfinance and the making of development* (1st ed.). Routledge https://doi.org/10.4324/9780203854716
Scharrer, T., Lambert, L., Millar, S., Peksen, M., & Laakkonen, V. (2024). Contested future-making in containment: temporalities, infrastructures and agency. *CMS, 12*, 54. https://doi.org/10.1186/s40878-024-00413-z
Schinkel, W., & van den Berg, M. (2011). City of exception: The Dutch Revanchist City and the urban homo sacer. *Antipode*. https://doi.org/10.1111/j.1467-8330.2010.00831.x
Scholten, P., Crul, M., & van de Laar, P. (2018). Introduction. In P. Scholten, M. Crul, & P. van de Laar (Eds.), *IMISCOE research seriesComing to terms with superdiversity*. Cham: Springer.
Seemann, A. (2020). The Danish 'ghetto initiatives' and the changing nature of social citizenship, 2004–2018. *Critical Social Policy, 41*(4), 586–605. https://doi.org/10.1177/0261018320978504
Serraglio, D. A., & Thornton, F. (2024). Women on the move? Mainstreaming gender in policies and legal frameworks addressing climate-induced migration. *CMS, 12*, 53. https://doi.org/10.1186/s40878-024-00412-0
Snel, E., van Ostaijen, M., & 't Hart, M. (2018). Rotterdam as a case of complexity reduction: Migration from central and eastern European countries. In P. Scholten, M. Crul, & P. van de Laar (Eds.), *IMISCOE research seriesComing to terms with Superdiversity*. Cham: Springer.
Stouten, P. L. (2010). *Changing contexts in urban regeneration: 30 years of modernisation in Rotterdam*. Amsterdam, The Netherlands: Techne Press.
Taylor, D. E. (2014). *Toxic communities: Environmental racism, industrial pollution, and residential mobility*. NYU Press. http://www.jstor.org/stable/j.ctt9qg1v9.
Tersteeg, A., Bolt, G., & van Kempen, R. (2015). *Fieldwork inhabitants, Rotterdam (the Netherlands)*. Utrecht: Utrecht University.
The Netherlands Architecture Funds. (2009). *Maakbaarheid facts on the ground in Rotterdam. Lay-out 09 platform for recent design research* (pp. 1–24). Retrieved from: http://www.architectuurfonds.nl/content/lay/i_010/Lay_Out09_WEB.pdf. (Accessed 11 September 2024).
Tweede Kamer der Staten-Generaal. (25 August 2016). *33 340 Evaluatie Wet bijzondere maatregelen grootstedelijke problematiek. Nr. 9 BRIEF VAN DE MINISTER VOOR WONEN EN RIJKSDIENST*.
Vigil, S. (2024). Towards a feminist political ecology of migration in a changing climate. *Geoforum, 155*, Article 104076. ISSN 0016-7185 https://doi.org/10.1016/j.geoforum.2024.104076.
Wijkprofiel Rotterdam. (2024). 2014–2024 Rotterdam neighbourhood profile. Retrieved from: https://wijkprofiel.rotterdam.nl/nl/2024/rotterdam.
Woonstad Rotterdam. (09 October 2023). Bodem in Bloemhof zakt. Retrieved from: https://www.woonstadrotterdam.nl/bloemhof. (Accessed 26 November 2024).
Zorlu, A., & Mulder, C. H. (2008). Initial and subsequent location choices of immigrants to the Netherlands. *Regional Studies, 42*(2), 245–264. https://doi.org/10.1080/00343400601145210